

BRAKE FLUID

CODE R00072160000

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CHEMICAL PRODUCT AND COMPANY INFORMATION

REVISION DATE: 04/03/1995  
UN NUMBER- UN1118

PRIMARY APPLICATION- LUBRICANT

MANUFACTURER- SUN COMPANY, INC.  
TEN PENN CENTER  
1801 MARKET STREET  
PHILADELPHIA PA 19103-1699

SYNONYMS.....: NOT AVAILABLE  
CAS REGISTRY NO: SEE SECT. 2  
CAS NAME.....: NO CLASSIFICATION - MIXTURE  
CHEMICAL FAMILY: BLEND  
INFORMATION  
SUPPLIER... MARIA DAYRIT  
PHONE.....: (215) 246-8201

EMERGENCY PHONE NUMBERS (AFTER NORMAL BUSINESS HOURS)  
SUN CO.. 1-800-964-8861  
CHEMTREC. 1-800-424-9300

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2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT/CAS NO.	LO%	HI%	OSHA		ACGIH		SUN/MFR		UNIT
			TWA	STEL	TWA	STEL	TWA	STEL	
LIMITS FOR THE PRODUCT:									
NO SPECIFIC LIMIT									
DIETHYLENE GLYCOL									
111-46-6	.00	80.00			CEILING LIMIT	-			50 PPM
DIETHYLENE GLYCOL BUTYL ETHER									
112-34-5	.00	80.00			NO SPECIFIC LIMIT				
TRIETHYLENE GLYCOL MONOMETHYL ETHER									
143-22-6	.00	80.00			NO SPECIFIC LIMIT				
DIETHYLENE GLYCOL MONOETHYL ETHER									
111-90-0	.00	80.00			NO SPECIFIC LIMIT				
ETHOXYTRIGLYCOL									
112-50-5	.00	80.00			NO SPECIFIC LIMIT				

ADDITIONAL EXPOSURE LIMITS ----- GOVERNMENT REGULATION  
OTHER LIMIT- SEE SECTION 2

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## 3. HAZARDS IDENTIFICATION

## EMERGENCY OVERVIEW -----

CAUTION! MAY CAUSE RESPIRATORY TRACT IRRITATION. CAUSES SKIN IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CONTAINS MATERIAL(S) WHICH MAY CAUSE ADVERSE REPRODUCTIVE EFFECTS.

APPEARANCE-- AMBER LIQUID                      ODOR-- MILD

## POTENTIAL HEALTH EFFECTS -----

PRIMARY ROUTES OF ENTRY- INHALATION( X ) SKIN( X ) EYE( X ) INGESTION( X )

## INHALATION -----

EXCESSIVE EXPOSURE TO MISTS OR VAPORS GENERATED BY HEAT MAY CAUSE IRRITATION TO EYES, NOSE, THROAT AND LUNGS. RESPIRATORY TRACT; CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS; HEADACHES, NAUSEA; DIZZINESS, LOSS OF BALANCE AND COORDINATION; UNCONSCIOUSNESS, COMA; RESPIRATORY FAILURE AND DEATH. CONTAINS A MATERIAL(S) WHICH IS A SUSPECT FEMALE REPRODUCTIVE HAZARD.

## SKIN -----

PRACTICALLY NON-TOXIC IF ABSORBED (LD50 GREATER THAN 2000 MG/KG). MAY CAUSE MILD IRRITATION WITH PROLONGED OR REPEATED CONTACT. REMOVES NATURAL OILS & FATS FROM SKIN.

## EYE -----

CONTACT WITH THE EYE MAY CAUSE MODERATE TO SEVERE IRRITATION. CORNEAL DAMAGE OR OPACITY.

## INGESTION -----

SLIGHTLY TOXIC (LD50 5 TO 15 G/KG). HARMFUL OR FATAL IF SWALLOWED. INGESTION OF THIS MATERIAL MAY CAUSE IRRITATION TO THE MOUTH, THROAT AND GASTRO-INTESTINAL TRACT; CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS; NAUSEA, VOMITING AND DIARRHEA; CONTAINS A MATERIAL WHICH IS A SUSPECT FEMALE REPRODUCTIVE HAZARD.

CARCINOGEN LISTED BY- IARC(NO)    NTP(NO)    OSHA(NO)    ACGIH(NO)    OTHER(NO)

PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE-  
NONE KNOWN OR REPORTED.

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## 4. FIRST AID MEASURES

## INHALATION -----

MOVE PERSON TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, OBTAIN MEDICAL ASSISTANCE.

## SKIN -----

WASH WITH SOAP AND WATER UNTIL NO ODOR REMAINS. IF REDNESS OR SWELLING DEVELOPS, OBTAIN MEDICAL ASSISTANCE. IMMEDIATELY REMOVE SOAKED CLOTHING. WASH CLOTHING BEFORE REUSE. DESTROY CONTAMINATED SHOES.

## EYE -----

FLUSH WITH WATER FOR AT LEAST 15 MINUTES. OBTAIN MEDICAL ASSISTANCE.

## INGESTION -----

GIVE LIQUIDS AND INDUCE VOMITING UNLESS VICTIM IS UNCONSCIOUS. NEVER

GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF VICTIM IS CONSCIOUS AND ALERT VOMITING SHOULD BE INDUCED BY OR UNDER THE DIRECTION OF A PHYSICIAN OR POISON CONTROL CENTER. OBTAIN EMERGENCY MEDICAL ATTENTION.

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#### 5. FIRE FIGHTING MEASURES

FLASH POINT: 272 PMCC (DEG. F); 133 PMCC (DEG. C)  
AUTOIGNITION TEMP.: NOT DETERMINED (DEG. F); NOT DETERMINED (DEG. C)

---FLAMMABLE LIMITS IN AIR---

LOWER EXPLOSIVE LIMIT (LEL): NOT DETERMINED % VOLUME  
UPPER EXPLOSIVE LIMIT (UEL): NOT DETERMINED % VOLUME

FIRE AND EXPLOSION HAZARDS -----  
CAN BE MADE TO BURN (FLASH POINT GREATER THAN 200F).

EXTINGUISHING-MEDIA -----  
WATER SPRAY. ALCOHOL RESISTANT FOAM. DRY CHEMICAL. CARBON DIOXIDE.

SPECIAL FIRE FIGHTING INSTRUCTIONS -----  
WATER OR FOAM MAY CAUSE FROTHING. WEAR SELF-CONTAINED BREATHING APPARATUS. WEAR STRUCTURAL FIREFIGHTERS PROTECTIVE CLOTHING.

#### NFPA/HMIS CLASSIFICATION

HEALTH - 2 / 2

FIRE - 1 / 1

REACTIVITY - 0 / 0

PERSONAL PROTECTION INDEX - X

#### HAZARD RATING

0=LEAST 1=SLIGHT

2=MODERATE 3=HIGH

4=EXTREME

SPECIFIC HAZARD: NONE KNOWN

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#### 6. ACCIDENTAL RELEASE MEASURES

CONTAIN SPILL. USE PERSONAL PROTECTIVE EQUIPMENT STATED IN SECTION 8. ADVISE EPA; STATE AGENCY IF REQUIRED. ABSORB ON INERT MATERIAL. SHOVEL, SWEEP OR VACUUM SPILL.

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#### 7. HANDLING AND STORAGE

KEEP AWAY FROM HEAT, SPARKS AND FLAME. KEEP IN COOL, DRY PLACE. KEEP CONTAINER TIGHTLY CLOSED. KEEP IN WELL VENTILATED SPACE. NFPA CLASS IIIB STORAGE. CONSULT NFPA AND OSHA CODES. AVOID PROLONGED BREATHING OF MIST OR VAPOR. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. AVOID CONTACT WITH EYES. WASH THOROUGHLY AFTER HANDLING.

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## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

CONSULT WITH A HEALTH/SAFETY PROFESSIONAL FOR SPECIFIC SELECTION.

## VENTILATION -----

USE ONLY WITH ADEQUATE VENTILATION. VENTILATE AS NEEDED TO COMPLY WITH EXPOSURE LIMIT. LOCAL EXHAUST VENTILATION RECOMMENDED.

## PERSONAL PROTECTIVE EQUIPMENT -----

## EYE -----

SPLASH PROOF CHEMICAL GOGGLES OR FULL FACE SHIELD RECOMMENDED TO PROTECT AGAINST SPLASH OF PRODUCT.

## GLOVES -----

PROTECTIVE GLOVES RECOMMENDED WHEN PROLONGED SKIN CONTACT CANNOT BE AVOIDED. THE FOLLOWING GLOVE MATERIALS ARE ACCEPTABLE: POLYVINYL CHLORIDE (PVC); NATURAL RUBBER;

## RESPIRATOR -----

CONCENTRATION-IN-AIR DETERMINES PROTECTION NEEDED. USE ONLY NIOSH CERTIFIED RESPIRATORY PROTECTION. RESPIRATORY PROTECTION USUALLY NOT NEEDED UNLESS PRODUCT IS HEATED OR MISTED. HALF-MASK AIR PURIFYING RESPIRATOR WITH DUST/MIST FILTERS OR HEPA FILTER CARTRIDGES IS ACCEPTABLE TO 10 TIMES THE EXPOSURE LIMIT. FULL-FACE AIR PURIFYING RESPIRATOR WITH DUST/MIST FILTERS OR HEPA FILTER CARTRIDGES IS ACCEPTABLE TO 50 TIMES THE EXPOSURE LIMIT. PROTECTION BY AIR PURIFYING RESPIRATORS IS LIMITED. USE A POSITIVE PRESSURE-DEMAND FULL-FACE SUPPLIED AIR RESPIRATOR OR SCBA FOR EXPOSURES ABOVE 50X THE EXPOSURE LIMIT. IF EXPOSURE IS ABOVE IDLH (IMMEDIATELY DANGEROUS TO LIFE & HEALTH) OR THERE IS THE POSSIBILITY OF AN UNCONTROLLED RELEASE OR EXPOSURE LEVELS ARE UNKNOWN THEN USE A POSITIVE PRESSURE-DEMAND FULL-FACE SUPPLIED AIR RESPIRATOR WITH ESCAPE BOTTLE OR SCBA.

## OTHER -----

IF CONTACT IS UNAVOIDABLE, WEAR CHEMICAL RESISTANT CLOTHING. THE FOLLOWING MATERIALS ARE ACCEPTABLE AS PROTECTIVE CLOTHING MATERIALS: POLYETHYLENE; POLYVINYL ALCOHOL (PVA); NEOPRENE; NITRILE; VITON; SAFETY SHOWER AND EYE WASH AVAILABILITY RECOMMENDED. LAUNDRY SOILED CLOTHES.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT.....: 450 (DEG. F) \_\_\_\_\_ 232 (DEG. C)  
MELTING POINT.....: N/A (DEG. F) \_\_\_\_\_ N/A (DEG. C)  
SPECIFIC GRAVITY.....: 1.05 (WATER=1)  
PACKING DENSITY.....: N.D. (KG/M3)  
VAPOR PRESSURE.....: N.D. (MM HG @ 20 DEG C)  
VAPOR DENSITY.....: N.D. (AIR=1)  
SOLUBILITY IN WATER.: SOLUBLE (% BY VOLUME)  
PH INFORMATION.....: N/A AT CONC. N/A G/L H2O  
% VOLATILES BY VOL.: N.D.  
EVAPORATION RATE.....: < 0.001 (ETHYL ETHER=1)  
OCTANOL/WATER COEFF.: N.D.  
APPEARANCE.....: AMBER LIQUID  
ODOR.....: MILD  
ODOR THRESHOLD.....: N.D. (PPM)

VISCOSITY.....: N.D. SUS @ N.D DEG F ... N.D. CST @ N.D DEG C  
MOLECULAR WEIGHT.....: N.D. (G/MOLE)

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## 10. STABILITY AND REACTIVITY

STABILITY -----  
STABLE.  
INCOMPATIBLE MATERIALS -----  
STRONG OXIDIZING AGENTS  
HAZARDOUS DECOMPOSITION -----  
COMBUSTION WILL PRODUCE CARBON MONOXIDE, CARBON DIOXIDE.  
POLYMERIZATION -----  
WILL NOT OCCUR.

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## 11. TOXICOLOGICAL INFORMATION

### FOR THE PRODUCT -----

INHALATION: OVEREXPOSURE TO MIST OR VAPORS MAY CAUSE EYE, NOSE, THROAT AND RESPIRATORY TRACT, CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS, NAUSEA, HEADACHE, DIZZINESS, WEAKNESS. SKIN: PROLONGED OR REPEATED CONTACT MAY CAUSE SLIGHT IRRITATION. EYE: CONTACT MAY CAUSE MODERATE TO SEVERE IRRITATION. ORAL: HARMFUL IF SWALLOWED. INGESTION MAY CAUSE IRRITATION TO THE GASTROINTESTINAL TRACT, NAUSEA, VOMITING AND DIARRHEA. CONTAINS DIETHYLENE GLYCOL WHICH CAUSED MATERNAL TOXICITY AND FETAL DEVELOPMENT ABNORMALITIES IN ANIMAL STUDIES.

### DIETHYLENE GLYCOL (COMPONENT)

INHALATION: HIGH CONCENTRATION OF VAPOR UNLIKELY. IF HEATED, MAY CAUSE EYE, NOSE, THROAT, & RESPIRATORY IRRITATION, CNS (BRAIN) EFFECTS, DIZZINESS. SKIN: PROLONGED OR REPEATED CONTACT MAY CAUSE IRRITATION. EYE: MILD IRRITANT. INGESTION: HARMFUL OR FATAL IF SWALLOWED. ACUTE POISONING MAY CAUSE GI PAIN, NAUSEA, VOMITING, DIARRHEA, COMA, KIDNEY OR LIVER EFFECTS OR DAMAGE. IN ANIMALS, HIGH ORAL CONCENTRATIONS CAUSED MATERNAL TOXICITY AND ADVERSE REPRODUCTIVE EFFECTS. FETAL DEVELOPMENT ABNORMALITIES HAVE BEEN REPORTED IN RATS.

### DIETHYLENE GLYCOL BUTYL ETHER (COMPONENT)

INHALATION: NO DATA AVAILABLE. SKIN: MILDLY TOXIC IF ABSORBED. LD50 (RABBIT) 4120 MG/KG. PROLONGED OR REPEATED CONTACT MAY CAUSE IRRITATION. EYE: CONTACT MAY CAUSE SEVERE IRRITATION. ORAL: MODERATELY TOXIC IF SWALLOWED. LD50 (RAT) 6560 MG/KG.

### TRIETHYLENE GLYCOL MONOMETHYL ETHER (COMPONENT)

INHALATION: NO DATA. SKIN: MODERATELY TOXIC IF ABSORBED. LD50 (RABBIT) 3540 MG/KG. PROLONGED OR REPEATED CONTACT MAY CAUSE MILD IRRITATION. EYE: CONTACT MAY CAUSE SEVERE IRRITATION. ORAL: MILDLY TOXIC IF SWALLOWED. LD50 (RAT) 6730 MG/KG.

### DIETHYLENE GLYCOL MONOETHYL ETHER (COMPONENT)

INHALATION: NO DATA. SKIN: MILDLY TOXIC IF ABSORBED. LD50 (RABBIT) 8500 MG/KG. PROLONGED OR REPEATED CONTACT MAY CAUSE MILD IRRITATION. EYE: CONTACT MAY CAUSE MILD TO MODERATE IRRITATION. ORAL: MODERATELY TOXIC IF ABSORBED. LD50 (RAT) 3620-5500 MG/KG. HAS CAUSED REPRODUCTIVE EFFECTS IN ANIMAL STUDIES.

ETHOXYTRIGLYCOL (COMPONENT)  
INHALATION: NO DATA. SKIN: MILDLY TOXIC IF ABSORBED. LD50 (RABBIT)  
8 G/KG). PROLONGED OR REPEATED CONTACT MAY CAUSE MILD IRRITATION.  
EYE: CONTACT MAY CAUSE MILD IRRITATION. ORAL: MILDLY TOXIC IF  
SWALLOWED. LD50 (RAT) 10610 MG/KG.

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12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY -----

NO DATA AVAILABLE.

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13. DISPOSAL CONSIDERATIONS

FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS. NOT A RCRA HAZARDOUS WASTE  
IF UNCONTAMINATED. DO NOT FLUSH TO DRAIN/ STORM SEWER. CONTRACT TO  
AUTHORIZED DISPOSAL SERVICE.

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14. TRANSPORTATION INFORMATION

DOT-  
PROPER SHIPPING NAME- BRAKE FLUID, HYDRAULIC  
HAZARD CLASS- 3 (FLAMMABLE LIQUID)  
IDENTIFICATION NUMBER- UN1118  
LABEL REQUIRED- PG II, FLAMMABLE LIQUID

IMDG- PROPER SHIPPING NAME- NOT AVAILABLE

IATA- PROPER SHIPPING NAME- NOT AVAILABLE

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15. REGULATORY INFORMATION

SARA 302 THRESHOLD PLANNING QUANTITY. N/A

SARA 304 REPORTABLE QUANTITY ..... N/A

SARA 311 CATEGORIES- IMMEDIATE (ACUTE) HEALTH EFFECTS.. Y  
                          DELAYED (CHRONIC) HEALTH EFFECTS.. Y  
                          FIRE HAZARD ..... N  
                          SUDDEN RELEASE OF PRESSURE HAZARD. N  
                          REACTIVITY HAZARD ..... N

WHEN A PRODUCT AND/OR COMPONENT IS LISTED BELOW, THE REGULATORY  
LIST ON WHICH IT APPEARS IS INDICATED.

DIETHYLENE GLYCOL - PA RI

01=SARA 313	02=SARA 302/304	03=IARC CARCINOGEN
04=OSHA CARCINOGEN	05=ACGIH CARCINOGEN	06=NTP CARCINOGEN

BRAKE FLUID

CODE R00072160000

07=CERCLA 302.4

10=OTHER CARCINOGEN

PA=PENNSYLVANIA RTK

MA=MASSACHUSETTS RTK

FL=FLORIDA

NY=NEW YORK

LA=LOUISIANA

08=WHMIS CONTROLLED PROD.

NJ=NEW JERSEY RTK

MI=MICHIGAN 406

RI=RHODE ISLAND

WV=WEST VIRGINIA

ME=MAINE

CA=CALIFORNIA PROP 65

MN=MINNESOTA RTK

IL=ILLINOIS

CT=CONNECTICUT

OH=OHIO

THIS PRODUCT OR ALL COMPONENTS OF THIS PRODUCT ARE LISTED  
ON THE U.S. TSCA INVENTORY.

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16. OTHER INFORMATION

NONE